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Certified PCI-Express VGA Card List 32

CHAPTER 1: INTRODUCTION

1.1 MOTHERBOARD FEATURES

CPU

- Supports LGA 775.
- Supports Intel Pentium 4 processor up to 3.8GHz.
- Supports Intel Pentium D processor.
- Supports Intel Celeron D processor.
- Front side bus at the following frequency ranges:
  - 533MHz (133MHz Core Clock)
  - 800MHz (200MHz Core Clock)
- Supports Hyper-Threading Technology.

> ***WARNING!***
> Warranty will be void if the pin protection cap is not in place to protect the socket pin when sending this mainboard for service.

Chipset

- North Bridge: VIA PT880 Pro.
- South Bridge: VIA VT8237R PLUS.

Dimension

- ATX Form Factor: 29.3cm (L) x 23.5cm (W)

Operating System Supporting

- Supports Windows 98 / Me / 2000 / XP.

Slot

- Four 32-bit PCI bus master slots.
- One AGP 3.0 (8X) compatible slot.
- One PCI-Extreme (PE1) slot. (See p.11 for detail information)

Onboard AC'97 Sound CODEC

- Chip: REALTEK ALC655.
- Support 6 channels.
- Supports SPDIF-out and SPDIF-in (optional) functions.
- Compliant with AC'97 Version 2.3 specification.

Super I/O

- Chip: ITE 8705AF.
- Provides the most commonly used legacy super I/O functionality.
- Environment Control initiatives:
  - H/W Monitor.
  - Fan Speed Controller.
  - ITE “Smart Guardian” function.

System Memory

- Supports Dual Channel DDR/DDR2.
- Supports DDR2 400/533 memory and up to 2GB physical memory. (DDR2A1/DDR2B1)
- Supports DDR 200/266/333/400 memory and up to 2GB physical memory. (DDR1A2/DDR1B2)
- DDR and DDR2 memory capacity cannot be added together.
- Supports non-ECC memory only.
- Registered DIMMs are not supported.

DIMM Socket Location	*DDR/DDR2 Module*	*Total Memory Size*
DDR2A1	256MB/512MB/1GB *1	Max is 2GB.
DDR2B1	256MB/512MB/1GB *1	
DDR1A2	256MB/512MB/1GB *1	Max is 2GB.
DDR1B2	256MB/512MB/1GB *1	

10/100 LAN PHY

- PHY: RTL8201CL.
- Supports 10 Mb/s and 100 Mb/s auto-negotiation.
- Half/Full duplex capability.
- Supports ACPI, PCI power management.

Onboard Serial ATA

- Integrated in VT8237R PLUS.
- Supports RAID 0 and RAID 1 functions.
- Supports 2 serial ATA (SATA) ports.
  - Data transfer rates up to 150 MB/s.
  - Compliant with SATA Version 1.0 specification.

Onboard IDE

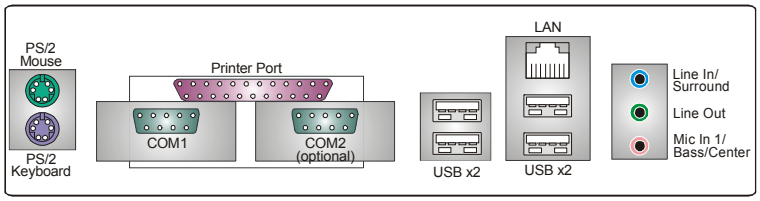
- Two IDE connectors support 4 hard disk drives.
- Supports PIO mode 0~4.
- Supports Ultra DMA 33/66/100/133 Bus Master Mode.

Internal On-board I/O Connectors and Headers

- 1 front panel header supports front panel facilities.
- 1 CD-in connector supports 1 CD-ROM audio-in device.
- 1 front audio header supports front panel audio-out function.
- 1 S/PDIF-Out connector supports digital audio-out function.
- 1 S/PDIF-In connector supports digital audio-in function (optional).
- 1 chassis open header supports PC case-opened warning function.
- 1 FDD connector supports 2 Floppy drives with 360K, 720K, 1.2M, 1.44M and 2.88Mbytes.
- 2 IDE connectors support 4 hard disk devices.
- 2 Serial ATA connectors support 2 SATA devices.
- 2 USB headers support 4 USB 2.0 ports at front panel.

Back Panel I/O Connectors

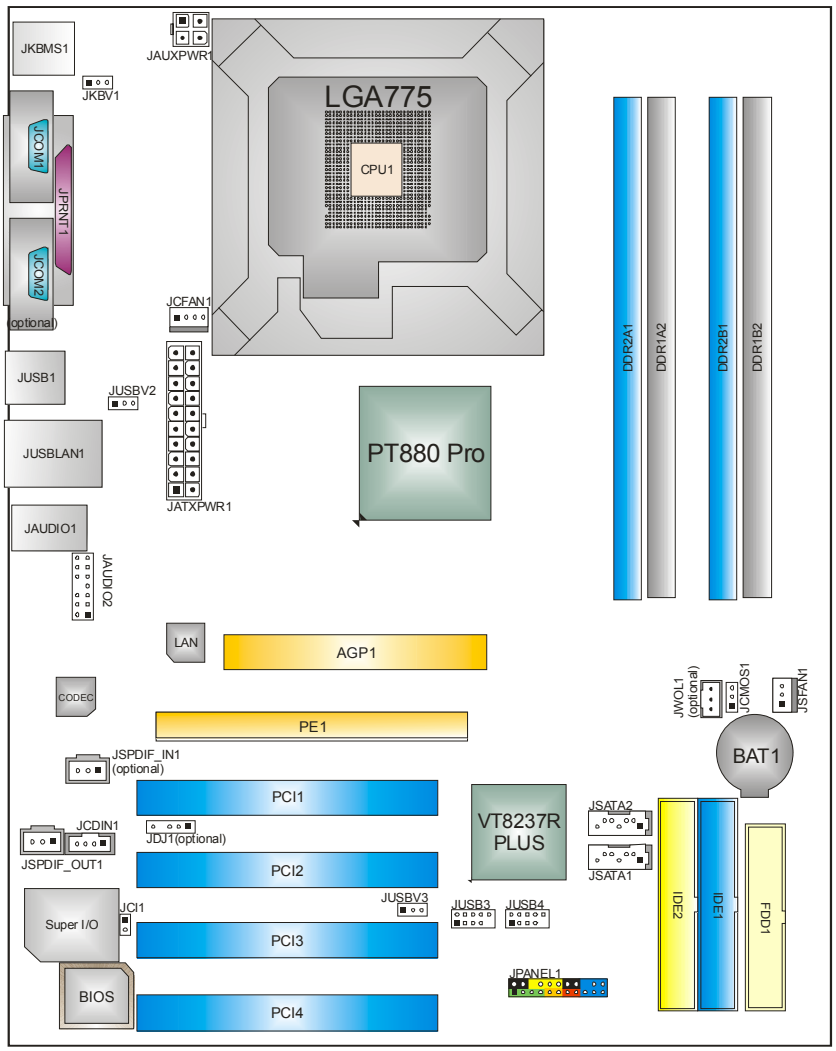
- 4 USB 2.0 ports.
- 1 COM port. (COM2 is optional)
- 1 Printer port.
- 1 RJ-45 LAN jack.
- 1 PS/2 Mouse port.
- 1 PS/2 Keyboard port.
- 1 Vertical audio port including 1 line-in connector, 1 line out connector, and 1 MIC in connector.



1.2 PACKAGE LIST

- FDD cable x 1
- HDD cable x 1
- User's Manual x 1
- Fully Setup Driver CD x 1
- Rear I/O panel for ATX case x 1
- USB 2.0 cable x 1 (optional)
- Serial ATA cable x 1 (optional)
- S/PDIF out cable x 1 (optional)

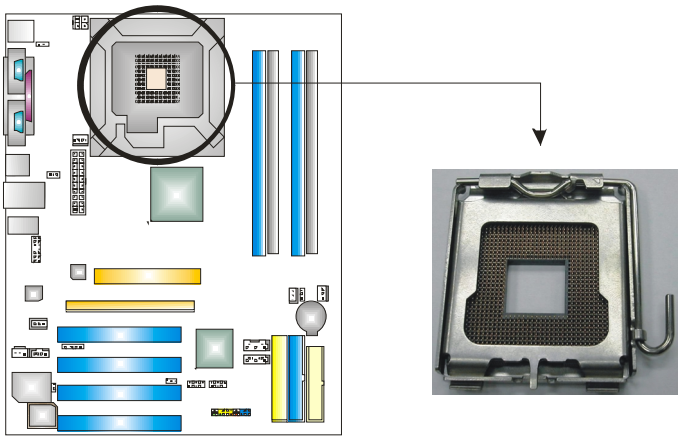
1.3 LAYOUT AND COMPONENTS



Note: ■ represents the 1st pin.

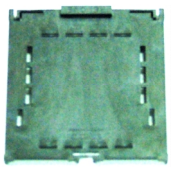
CHAPTER 2: HARDWARE INSTALLATION

2.1 INSTALLING CENTRAL PROCESSING UNIT (CPU)

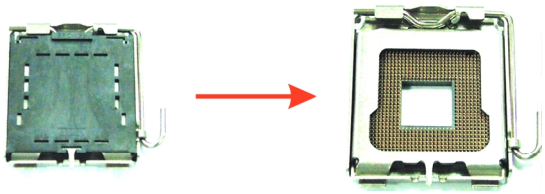


Special Notice:

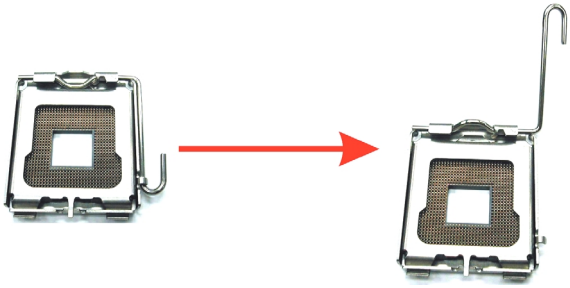
Remove Pin Cap before installation, and make good preservation for future use. When the CPU is removed, cover the Pin Cap on the empty socket to ensure pin legs won't be damaged.



Pin Cap

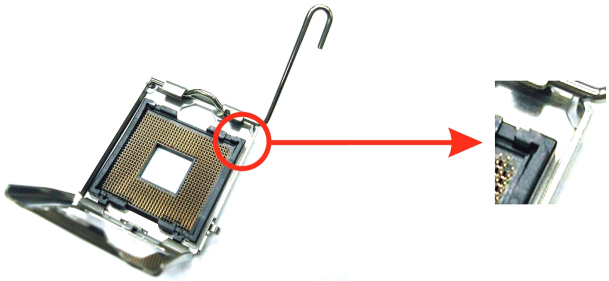


Step 1: Pull the socket locking lever out from the socket and then raise the lever up to a 90-degree angle.

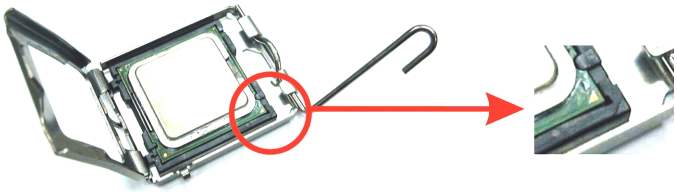


Step 2: Look for the triangular cut edge on socket, and the golden dot on CPU should point forwards this triangular cut edge. The CPU will fit only in the correct orientation.

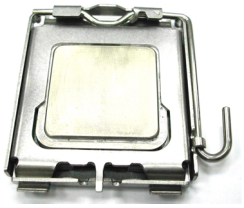
Step 2-1:



Step 2-2:



Step 3: Hold the CPU down firmly, and then lower the lever to locked position to complete the installation.

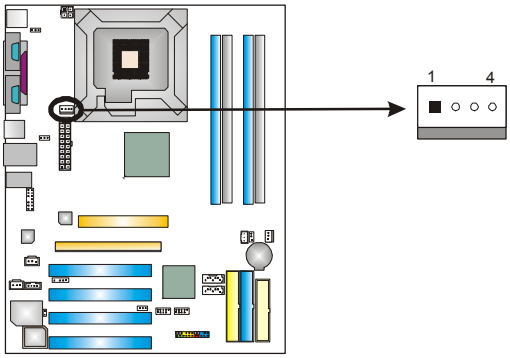


Step 4: Put the CPU Fan and heatsink assembly on the CPU and buckle it on the retention frame. Connect the CPU FAN power cable into the JCFAN1. This completes the installation.

2.2 FAN HEADERS

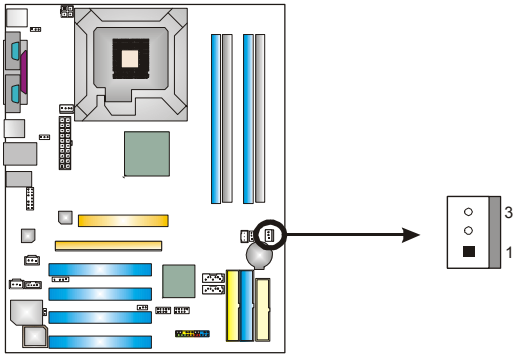
These fan headers support cooling-fans built in the computer. The fan cable and connector may be different according to the fan manufacturer. Connect the fan cable to the connector while matching the black wire to pin#1.

JCFAN1: Power Source Header for CPU Fan



Pin	Assignment
1	Ground
2	Power
3	FAN RPM rate sense
4	Smart Fan Control

JSFAN1: Power Source Header for System Fan

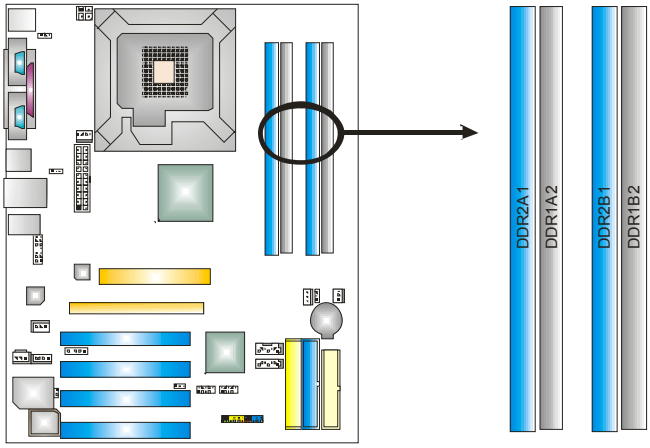


Pin	Assignment
1	Ground
2	+12V
3	FAN RPM rate sense

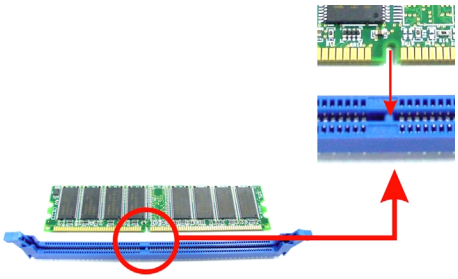
Note:

The JCFAN1 reserves cooling fan with Smart Fan Control utility. It supports 4-pin head connector. When connecting with wires onto connectors, please note that the red wire is the positive and should be connected to pin#2, and the black wire is Ground and should be connected to GND.

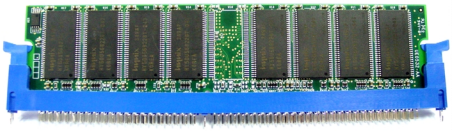
2.3 INSTALLING SYSTEM MEMORY



1. Unlock a DIMM slot by pressing the retaining clips outward. Align a DIMM on the slot such that the notch on the DIMM matches the break on the Slot.



2. Insert the DIMM vertically and firmly into the slot until the retaining chip snap back in place and the DIMM is properly seated.



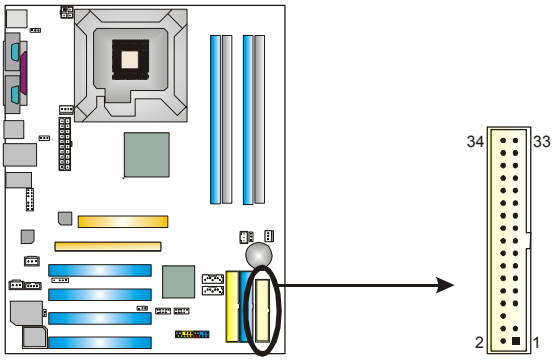
Notice:

1. For DDR2 modules, please insert DIMMs into DDR2 DIMM slots (DDR2A1/DDR2B1).
2. For DDR1 modules, please insert DIMMs into DDR1 DIMM slots (DDR1A2/DDR1B2).
3. DDR1 and DDR2 memory capacity cannot be added together.

2.4 CONNECTORS AND SLOTS

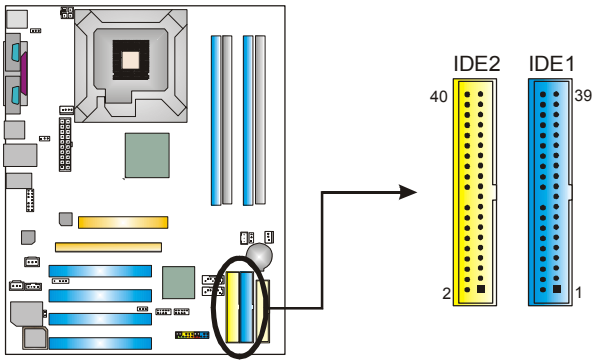
FDD1: Floppy Disk Connector

The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. This connector supports the provided floppy drive ribbon cables.



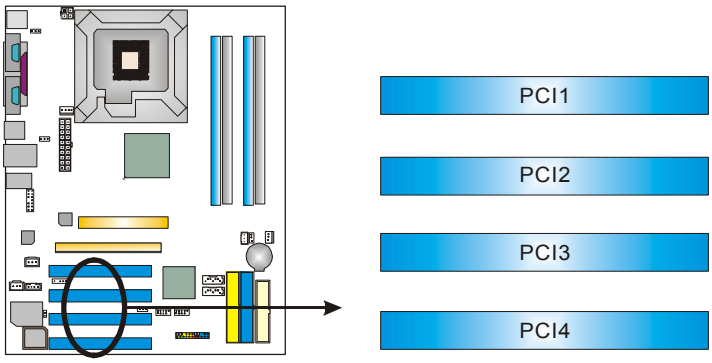
IDE1/IDE2: Hard Disk Connectors

The motherboard has a 32-bit Enhanced PCI IDE Controller that provides PIO Mode 0~4, Bus Master, and Ultra DMA 33/66/100/133 functionality. It has two HDD connectors IDE1 (primary) and IDE2 (secondary). The IDE connectors can connect a master and a slave drive, so you can connect up to four hard disk drives. The first hard drive should always be connected to IDE1.



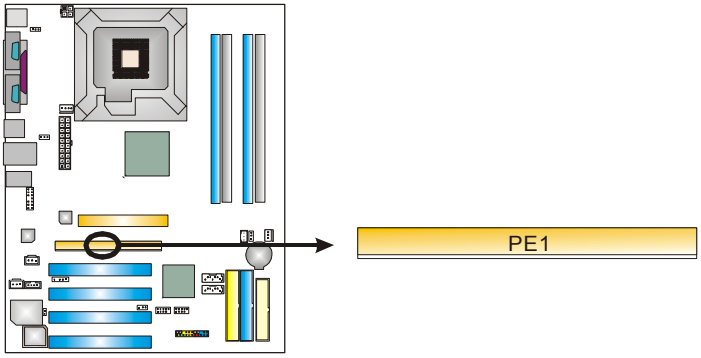
PCI1~PCI4: Peripheral Component Interconnect Slots

This motherboard is equipped with 4 standard PCI slots. PCI stands for Peripheral Component Interconnect, and it is a bus standard for expansion cards. This PCI slot is designated as 32 bits.



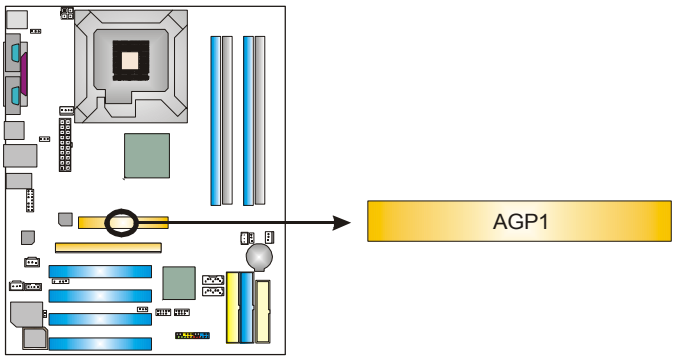
PE1: PCI-Extreme Slot

- PCI-Extreme slot is a special design for PCI-Express interface graphic cards.
- PCI-Extreme slot is compliant with PCI-Express 1.0a specification.
- PCI-Extreme slot is compatible with PCI-E x4 and PCI-E x1 expansion card.
- The bandwidth of data transfer is up to 1GB/s per direction, and for an aggregate of 2GB/s in total.



AGP1: Accelerated Graphics Port Slot

Your monitor will attach directly to that video card. This motherboard supports video cards for PCI slots, but it is also equipped with an Accelerated Graphics Port (AGP). An AGP card will take advantage of AGP technology for improved video efficiency and performance, especially with 3D graphics.



CHAPTER 3: HEADERS & JUMPERS SETUP

3.1 How to Setup Jumpers

The illustration shows how to set up jumpers. When the jumper cap is placed on pins, the jumper is "close", if not, that means the jumper is "open".

Pin opened

Pin closed

Pin1-2 closed

3.2 Detail Settings

JUSBV2/JUSBV3: Power Source Headers for USB Ports

Pin 1-2 Close:

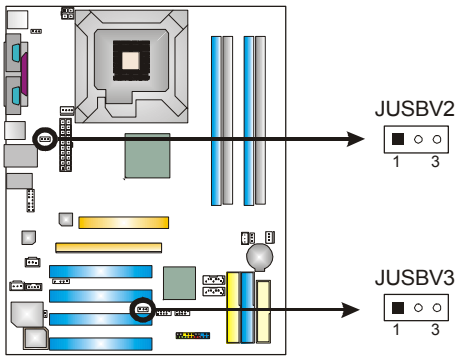
JUSBV2: +5V for USB ports at back panel (JUSB1/JUSBLAN1).

JUSBV3: +5V for USB ports at front panel (JUSB3/JUSB4).

Pin 2-3 Close:

JUSBV2: USB ports at back panel (JUSB1/JUSBLAN1) are powered by +5V standby voltage.

JUSBV3: USB ports at front panel (JUSB3/JUSB4) are powered by +5V standby voltage.



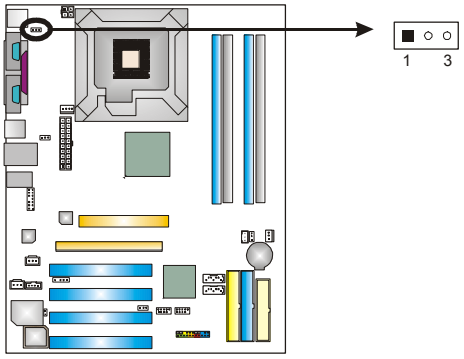
Pin 1-2 Close (default)

Pin 2-3 Close

Note:

In order to support this function "Power-On system via USB device," "JUSBV2/ JUSBV3" jumper cap should be placed on Pin 2-3 individually.

JKBV1: Power Source Header for PS/2 Keyboard and Mouse



Pin 1-2 Close (default)

+5V for PS/2 keyboard and mouse.

Pin 2-3 Close

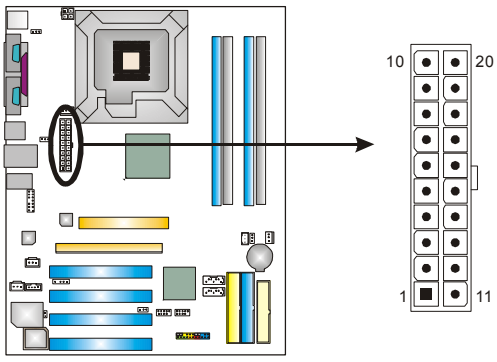
PS/2 keyboard and mouse are powered by +5V standby voltage.

Note:

In order to support this function “Power-on system via keyboard and mouse”, “JKBV1” jumper cap should be placed on Pin 2-3.

JATXPWR1: ATX Power Source Connector

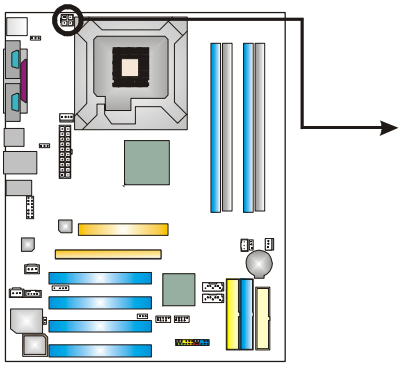
This connector allows user to connect 20-pin power connector on the ATX power supply.



Pin	Assignment
1	+3.3V
2	+3.3V
3	Ground
4	+5V
5	Ground
6	+5V
7	Ground
8	PW_OK
9	Standby Voltage +5V
10	+12V
11	+3.3V
12	DETECT
13	+3.3V
14	PS_ON
15	Ground
16	Ground
17	Ground
18	-5V
19	+5V
20	+5V

JAUXPWR1: Power Source Connector for CPU Power Circuit

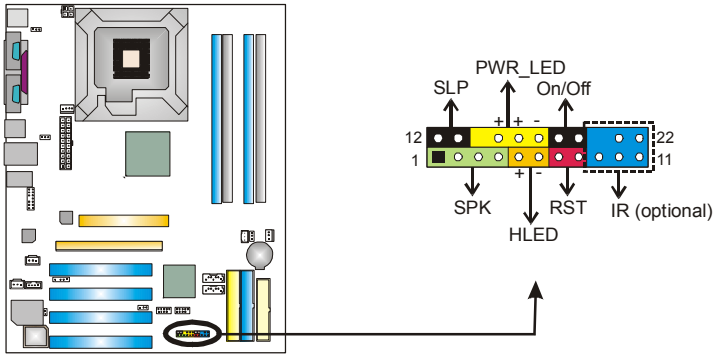
By connecting this connector, it will provide +12V to CPU power circuit.



Pin	Assignment
1	+12V
2	+12V
3	Ground
4	Ground

JPANEL1: Header for Front Panel Facilities

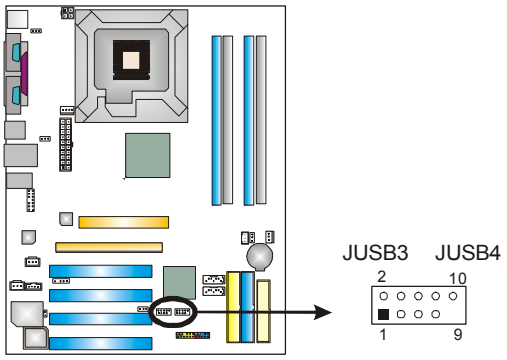
This 22-pin connector includes Power-on, Reset, HDD LED, Power LED, Sleep button, speaker and IrDA Connection. It allows user to connect the PC case's front panel switch functions.



Pin	Assignment	Function	Pin	Assignment	Function
1	+5V	Speaker Connector	12	Sleep control	Sleep button
2	N/A		13	Ground	
3	N/A		14	N/A	N/A
4	Speaker		15	Power LED (+)	Power LED
5	HDD LED (+)	Hard drive LED	16	Power LED (+)	
6	HDD LED (-)		17	Power LED (-)	
7	Ground	Reset button	18	Power button	Power-on button
8	Reset control		19	Ground	
9	N/A	IrDA Connector (optional)	20	Key	IrDA Connector (optional)
10	+5V		21	Ground	
11	IRTX		22	IRRX	

JUSB3/JUSB4: Headers for USB 2.0 Ports at Front Panel

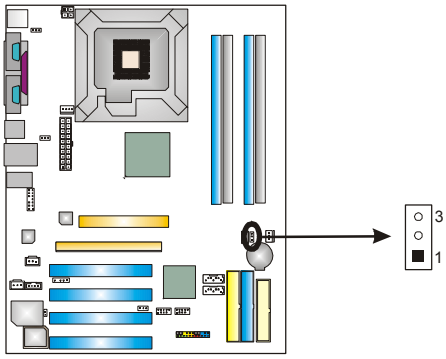
This header allows user to connect additional USB cable on the PC front panel, and also can be connected with internal USB devices, like USB card reader.



Pin	Assignment
1	+5V (fused)
2	+5V (fused)
3	USB-
4	USB-
5	USB+
6	USB+
7	Ground
8	Ground
9	Key
10	NC

JCMOS1: Clear CMOS Header

By placing the jumper on pin2-3, it allows user to restore the BIOS safe setting and the CMOS data, please carefully follow the procedures to avoid damaging the motherboard.



Pin 1-2 Close:
Normal Operation (default).

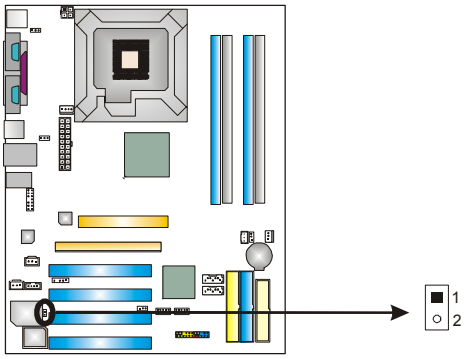
Pin 2-3 Close:
Clear CMOS data.

※ Clear CMOS Procedures:

1. Remove AC power line.
2. Set the jumper to “Pin 2-3 Close”.
3. Wait for five seconds.
4. Set the jumper to “Pin 1-2 Close”.
5. Power on the AC.
6. Reset your desired password or clear the CMOS data.

JCI1: Chassis Open Header

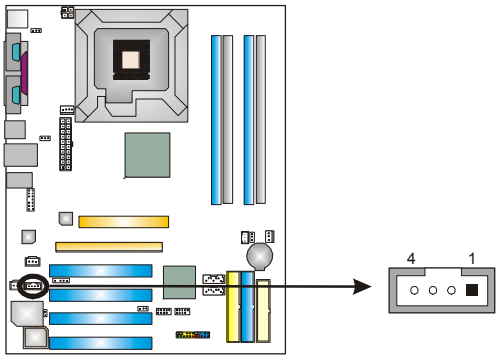
This connector allows system to monitor PC case open status. If the signal has been triggered, it will record to the CMOS and show the message on next boot-up.



Pin	Assignment
1	Case open signal
2	Ground

JCDIN1: CD-ROM Audio-in Connector

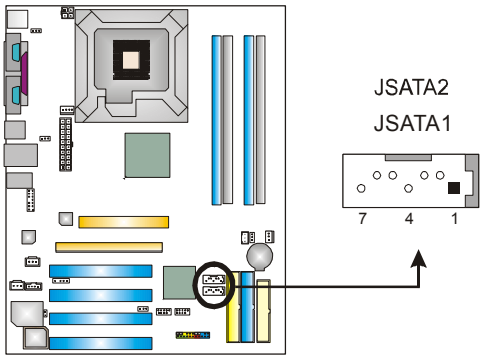
This connector allows user to connect the audio source from the variaty devices, like CD-ROM, DVD-ROM, PCI sound card, PCI TV turner card etc..



Pin	Assignment
1	Left Channel Input
2	Ground
3	Ground
4	Right Channel Input

JSATA1/JSATA2: Serial ATA Connectors

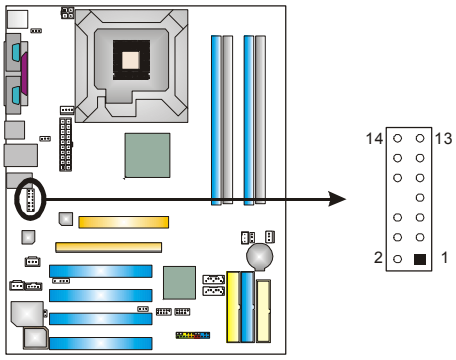
The motherboard has a PCI to SATA Controller with 2 channels SATA interface, it satisfies the SATA 1.0 spec and with transfer rate of 1.5Gb/s.



Pin	Assignment
1	Ground
2	TX+
3	TX-
4	Ground
5	RX-
6	RX+
7	Ground

JAUDIO2: Front Panel Audio Header

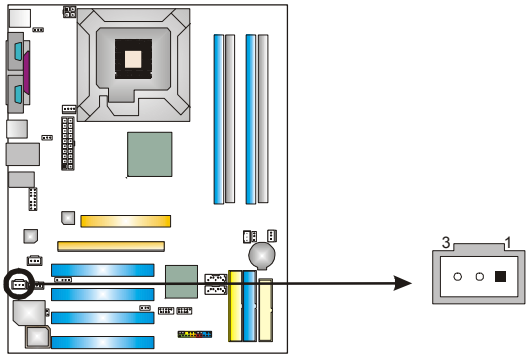
This header allows user to connect the front audio output cable with the PC front panel. It will disable the output on back panel audio connectors.



Pin	Assignment
1	Mic-in/Stereo MIC-in R
2	Ground
3	Stereo MIC-in L
4	Audio power
5	Right line-out/ Speaker-out Right
6	Right line-out/ Speaker-out Right
7	Reserved
8	Key
9	Left line-out/ Speaker-out Left
10	Left line-out/ Speaker-out Left
11	Right line-in (optional)
12	Right line-in (optional)
13	Left line-in (optional)
14	Left line-in (optional)

JSPDIF_OUT1: Digital Audio-out Connectors

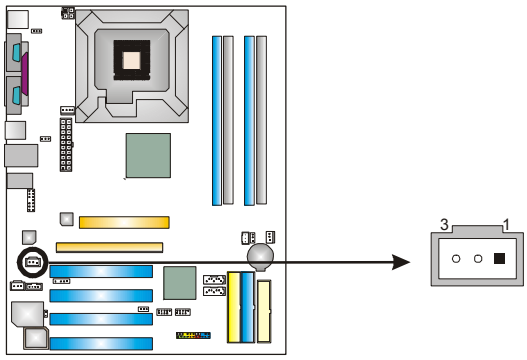
These connectors allow user to connect the PCI bracket SPDIF output header.



Pin	Assignment
1	+5V
2	SPDIF OUT
3	Ground

JSPDIF_IN1 (optional): Digital Audio-in Connectors

These connectors allow user to connect the PCI bracket SPDIF input header.



Pin	Assignment
1	+5V
2	SPDIF IN
3	Ground

CHAPTER 4: USEFUL HELP

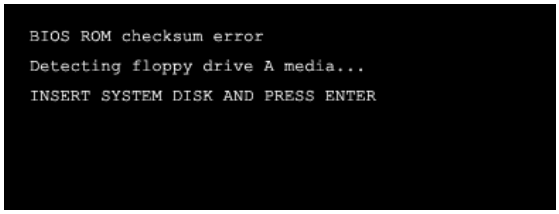
4.1 AWARD BIOS BEEP CODE

Beep Sound	Meaning
One long beep followed by two short beeps	Video card not found or video card memory bad
High-low siren sound	CPU overheated System will shut down automatically
One Short beep when system boot-up	No error found during POST
Long beeps every other second	No DRAM detected or install

4.2 EXTRA INFORMATION

A. BIOS Update

After you fail to update BIOS or BIOS is invaded by virus, the Boot-Block function will help to restore BIOS. If the following message is shown after boot-up the system, it means the BIOS contents are corrupted.



In this Case, please follow the procedure below to restore the BIOS:

1. Make a bootable floppy disk.
2. Download the Flash Utility "AWDFLASH.exe" from the Biostar website: www.biostar.com.tw
3. Confirm motherboard model and download the respectively BIOS from Biostar website.
4. Copy "AWDFLASH.exe" and respectively BIOS into floppy disk.
5. Insert the bootable disk into floppy drive and press Enter.
6. System will boot-up to DOS prompt.
7. Type *"Awdflash xxxx.bf/sn/py/r"* in DOS prompt.
   (*xxxx* means BIOS name.)
8. System will update BIOS automatically and restart.
9. The BIOS has been recovered and will work properly.

B. CPU Overheated

If the system shutdown automatically after power on system for seconds, that means the CPU protection function has been activated.

When the CPU is over heated, the motherboard will shutdown automatically to avoid a damage of the CPU, and the system may not power on again.

In this case, please double check:

1. The CPU cooler surface is placed evenly with the CPU surface.
2. CPU fan is rotated normally.
3. CPU fan speed is fulfilling with the CPU speed.

After confirmed, please follow steps below to relief the CPU protection function.

1. Remove the power cord from power supply for seconds.
2. Wait for seconds.
3. Plug in the power cord and boot up the system.

Or you can:

1. Clear the CMOS data.
   (See “Close CMOS Header: JCMOS1” section)
2. Wait for seconds.
3. Power on the system again.

4.3 TROUBLESHOOTING

Problem	Solution
1. No power to the system at all Power light don't illuminate, fan inside power supply does not turn on. 2. Indicator light on keyboard does not turn on.	1. Make sure power cable is securely plugged in. 2. Replace cable. 3. Contact technical support.
System inoperative. Keyboard lights are on, power indicator lights are lit, and hard drive is spinning.	Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.
System does not boot from hard disk drive, can be booted from optical drive.	1. Check cable running from disk to disk controller board. Make sure both ends are securely plugged in; check the drive type in the standard CMOS setup. 2. Backing up the hard drive is extremely important. All hard disks are capable of breaking down at any time.
System only boots from optical drive. Hard disk can be read and applications can be used but booting from hard disk is impossible.	1. Back up data and applications files. 2. Reformat the hard drive. Re-install applications and data using backup disks.
Screen message says "Invalid Configuration" or "CMOS Failure."	Review system's equipment. Make sure correct information is in setup.
Cannot boot system after installing second hard drive.	1. Set master/slave jumpers correctly. 2. Run SETUP program and select correct drive types. Call the drive manufacturers for compatibility with other drives.

CHAPTER 5: WARPSPEEDER™

5.1 INTRODUCTION

[WarpSpeeder™], a new powerful control utility, features three user-friendly functions including Overclock Manager, Overvoltage Manager, and Hardware Monitor.

With the Overclock Manager, users can easily adjust the frequency they prefer or they can get the best CPU performance with just one click. The Overvoltage Manager, on the other hand, helps to power up CPU core voltage and Memory voltage. The cool Hardware Monitor smartly indicates the temperatures, voltage and CPU fan speed as well as the chipset information. Also, in the About panel, you can get detail descriptions about BIOS model and chipsets. In addition, the frequency status of CPU, memory, AGP and PCI along with the CPU speed are synchronically shown on our main panel.

Moreover, to protect users' computer systems if the setting is not appropriate when testing and results in system fail or hang, [WarpSpeeder™] technology assures the system stability by automatically rebooting the computer and then restart to a speed that is either the original system speed or a suitable one.

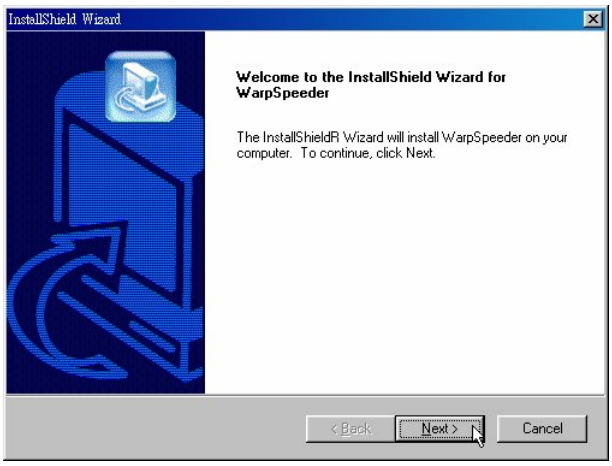
5.2 SYSTEM REQUIREMENT

OS Support: Windows 98 SE, Windows Me, Windows 2000, Windows XP

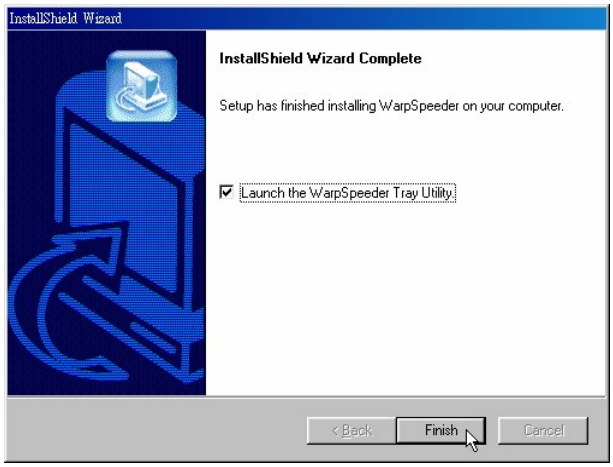
DirectX: DirectX 8.1 or above. (The Windows XP operating system includes DirectX 8.1. If you use Windows XP, you do not need to install DirectX 8.1.)

5.3 INSTALLATION

1. Execute the setup execution file, and then the following dialog will pop up. Please click “Next” button and follow the default procedure to install.


InstallShield Wizard
Welcome to the InstallShield Wizard for WarpSpeeder
The InstallShieldR Wizard will install WarpSpeeder on your computer. To continue, click Next.
< Back
Next >
Cancel

2. When you see the following dialog in setup procedure, it means setup is completed. If the “Launch the WarpSpeeder Tray Utility” checkbox is checked, the Tray Icon utility and [WarpSpeeder™] utility will be automatically and immediately launched after you click “Finish” button.



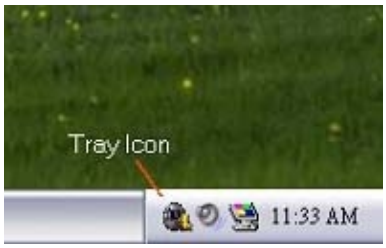
Usage:

The following figures are just only for reference, the screen printed in this user manual will change according to your motherboard on hand.

5.4 [WarpSpeeder™] includes 1 tray icon and 5 panels

1. Tray Icon:

Whenever the Tray Icon utility is launched, it will display a little tray icon on the right side of Windows Taskbar.



This utility is responsible for conveniently invoking [WarpSpeeder™] Utility. You can use the mouse by clicking the left button in order to invoke [WarpSpeeder™] directly from the little tray icon or you can right-click the little tray icon to pop up a popup menu as following figure. The “Launch Utility” item in the popup menu has the same function as mouse left-click on tray icon and “Exit” item will close Tray Icon utility if selected.

2. Main Panel

If you click the tray icon, [WarpSpeeder™] utility will be invoked. Please refer to the following figure; the utility's first window you will see is Main Panel.

Main Panel contains features as follows:

a. Display the CPU Speed, CPU external clock, Memory clock, AGP clock, and PCI clock information.

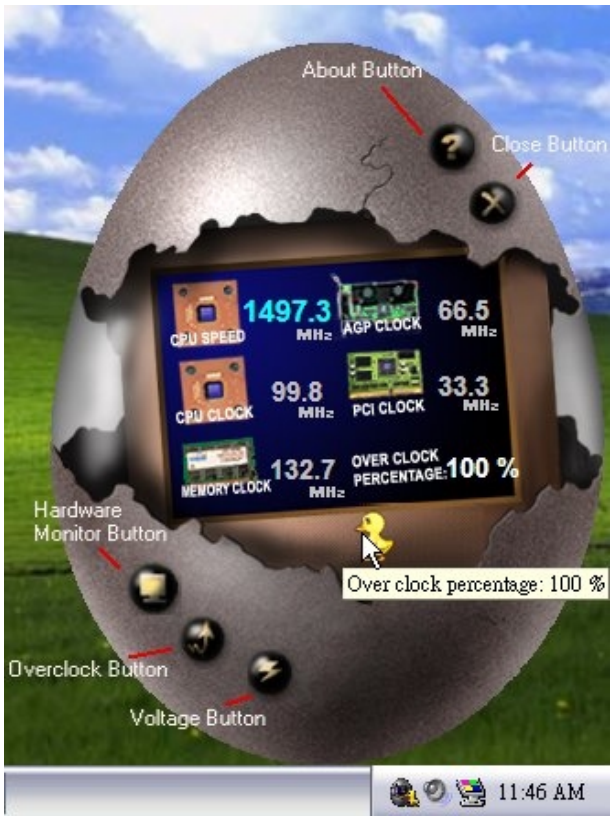
b. Contains About, Voltage, Overclock, and Hardware Monitor Buttons for invoking respective panels.

c. With a user-friendly Status Animation, it can represent 3 overclock percentage stages:

Man walking→overclock percentage from 100% ~ 110 %

Panther running→overclock percentage from 110% ~ 120%

Car racing→overclock percentage from 120% ~ above



3. Voltage Panel

Click the Voltage button in Main Panel, the button will be highlighted and the Voltage Panel will slide out to up as the following figure.

In this panel, you can decide to increase CPU core voltage and Memory voltage or not. The default setting is “No”. If you want to get the best performance of overclocking, we recommend you click the option “Yes”.

4. Overclock Panel

Click the Overclock button in Main Panel, the button will be highlighted and the Overclock Panel will slide out to left as the following figure.

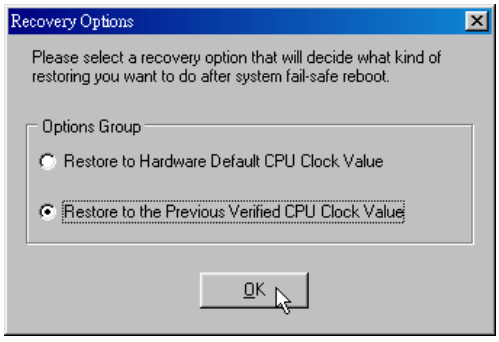
Overclock Panel contains the these features:

a. "–3MHz button", "-1MHz button", "+1MHz button", and "+3MHz button": provide user the ability to do real-time overclock adjustment.

Warning:

Manually overclock is potentially dangerous, especially when the overclocking percentage is over 110 %. We strongly recommend you verify every speed you overclock by click the Verify button. Or, you can just click Auto overclock button and let [WarpSpeeder™] automatically gets the best result for you.

b. "Recovery Dialog button": Pop up the following dialog. Let user select a restoring way if system need to do a fail-safe reboot.


Recovery Options
Please select a recovery option that will decide what kind of restoring you want to do after system fail-safe reboot.
Options Group
Restore to Hardware Default CPU Clock Value
Restore to the Previous Verified CPU Clock Value
OK

c. "Auto-overclock button": User can click this button and [WarpSpeeder™] will set the best and stable performance and frequency automatically. [WarpSpeeder™] utility will execute a series of testing until system fail. Then system will do fail-safe reboot by using Watchdog function. After reboot, the [WarpSpeeder™] utility will restore to the hardware default setting or load the verified best and stable frequency according to the Recovery Dialog's setting.

d. "Verify button": User can click this button and [WarpSpeeder™] will proceed a testing for current frequency. If the testing is ok, then the current frequency will be saved into system registry. If the testing fail, system will do a fail-safe rebooting. After reboot, the [WarpSpeeder™] utility will restore to the hardware default setting or load the verified best and stable frequency according to the Recovery Dialog's setting.

Note:

Because the testing programs, invoked in Auto-overclock and Verify, include DirectDraw, Direct3D and DirectShow tests, the DirectX 8.1 or newer runtime library is required. And please make sure your display card's color depth is High color (16 bit) or True color (24/32 bit) that is required for Direct3D rendering.

5. Hardware Monitor Panel

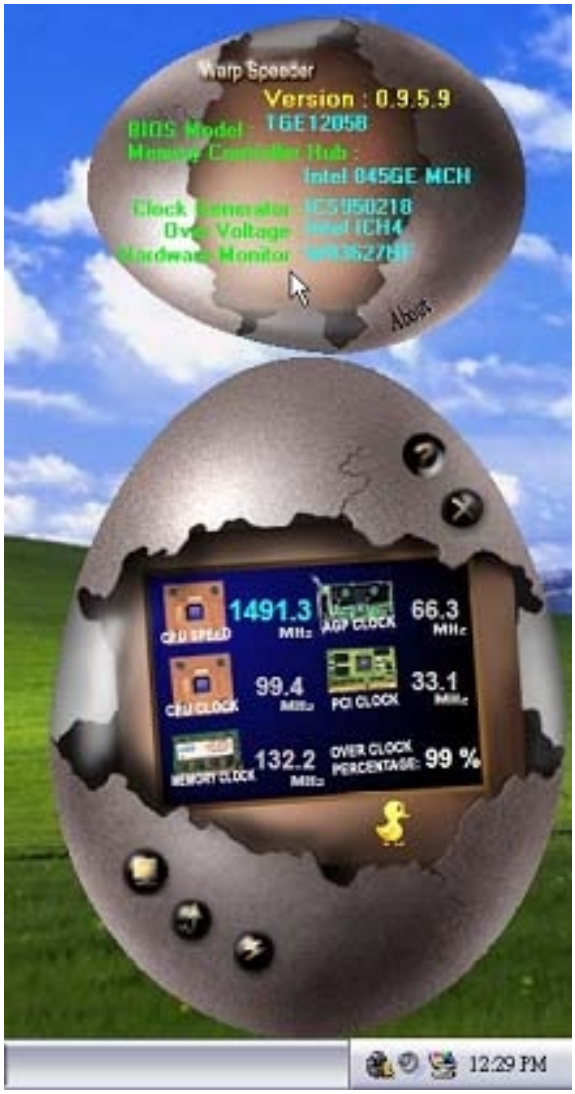
Click the Hardware Monitor button in Main Panel, the button will be highlighted and the Hardware Monitor panel will slide out to left as the following figure.

In this panel, you can get the real-time status information of your system. The information will be refreshed every 1 second.

6. About Panel

Click the “about” button in Main Panel, the button will be highlighted and the About Panel will slide out to up as the following figure.

In this panel, you can get model name and detail information in hints of all the chipset that are related to overclocking. You can also get the mainboard’s BIOS model and the Version number of [WarpSpeeder™] utility.



Note:

Because the overclock, overvoltage, and hardware monitor features are controlled by several separate chipset, [WarpSpeeder™] divide these features to separate panels. If one chipset is not on board, the correlative button in Main panel will be disabled, but will not interfere other panels' functions. This property can make [WarpSpeeder™] utility more robust.

APPENDIX:

CERTIFIED PCI-EXPRESS VGA CARD LIST

The following PCI-Express VGA Cards are certificated to work with this motherboard.

ASUS X300SE
ASUS X550GE
ASUS 5900
ELSA X850
ELSA X55
ELSA 6200
ELSA 6600
ELSA X700pro
ELSA 6600GT
Gigabyte X700
Gigabyte X800
MSI X800XL
MSI 5750
MSI X600
Nvidia 7800GT
Nvidia 7800GTX
Winfast 6800GT